



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER, FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,147	06/20/2001	Zhenghe Han	208473US3PCT	6315

22850 7590 09/11/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

HARAN, JOHN T

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 09/11/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. .

09/856,147

Applicant(s)

HAN, ZHENGHE

Examiner

John T. Haran

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-9,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the amendment and response filed on 8/13/03.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate both a superconducting core and super conducting filaments and reference character "2" has been used to designate both a metal sheath and a metal matrix. A proposed drawing correction or corrected drawings are **required** in reply to the Office action **to avoid abandonment** of the application. The objection to the drawings will not be held in abeyance. It is also noted that the specification will have to be accordingly amended.

Specification

3. The amendment filed on 8/13/03 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the amendment to page 3, lines 13-14 specifies the coating material can be tetrafluoroethylene and the amendment to the paragraph beginning on page 4, line 16 specifies the low friction material is tetrafluoroethylene. Tetrafluoroethylene is not mentioned in the original disclosure and the term Teflon does not provide support for it because Teflon is polytetrafluoroethylene, not tetrafluoroethylene.

Art Unit: 1733

Applicant is required to cancel the new matter in the reply to this Office Action.

It is also noted that there appears to be some words missing at page 1, line 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 5 and 6 specify that the low friction material or coating material can be tetrafluoroethylene and this is considered new matter. The specification at the time the application was filed contained no mention of tetrafluoroethylene and reading the original specification would not convey to one skilled in the art that applicant had possession of the claimed invention at the time of filing. It is noted that the original specification does mention Teflon however this does not provide support for it because Teflon is polytetrafluoroethylene, not tetrafluoroethylene.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1733

7. Claims 1, 3, 5-9, and 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is directed to a method of producing a high TC superconducting tape or wire however the body of the claim is only directed to a wire because a tape does not have a superconducting core and a metal sheath, but superconducting filaments and a metal matrix. Claim 1 is also indefinite because it teaches applying a surface layer but then goes onto specify two surfaces layers, an electrically insulating layer and a low friction layer. It is suggested to amend the claim as follows:

A method of producing a high Tc superconducting wire, the method comprising the steps of:

providing a superconducting core;

placing a metal sheath around the superconducting core;

performing a plurality of annealing steps; and

after a final annealing step, applying a multilayer surface to the wire, the multilayer surface including an electrical insulating layer provided on the metal sheath and a low friction layer provided on the electrical insulating layer.

It is also suggested to add a new claim for producing a high TC superconducting tape as follows:

A method of producing a high Tc superconducting tape, the method comprising the steps of:

Art Unit: 1733

providing a plurality superconducting filaments;
embedding the superconducting filaments in a metal matrix;
performing a plurality of annealing steps; and
after a final annealing step, applying a multilayer surface to the tape, the multilayer surface including an electrical insulating layer provided on the metal matrix and a low friction layer provided on the electrical insulating layer.

It is noted that terminology will need to be changed throughout the claims, such as in claim 11 "surface layer" should be amended to - - multilayer surface - - and "wire or tape" should be amended to - - wire - -.

Claims 3, 6, 7, 8, and 9 are indefinite because it is unclear which layer of the multilayer the claims are referring to: the insulating layer or the low friction layer. The claims should be appropriately amended to specify which layer is being referred to without adding new matter.

Claim 5 contains the trademark/trade name Teflon. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the

Art Unit: 1733

present case, the trademark/trade name is used to identify/describe low friction layer and, accordingly, the identification/description is indefinite.

Claim 12 is indefinite because it is directed to a high TC superconducting tape or wire however the body of the claim is only directed to a tape because a wire does not have superconducting filaments and a metal matrix, but a superconducting core and a metal sheath. The phrase "wire or" should be deleted from the claim. Also "insulating" should read - - insulating - -.

Allowable Subject Matter

8. Claims 1, 3, 5, 7-9, and 11-12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first and second paragraph, set forth in this Office action.

9. The following is a statement of reasons for the indication of allowable subject matter:

As noted in Applicant's arguments filed on 8/13/03, pages 8-10, the prior art fails to suggest the claimed high Tc superconducting tape or wire or the claimed method of manufacturing a high Tc superconducting wire or tape comprising two surface layers, an electrically insulating layer on the metal sheath/matrix and an outer low friction layer. Absent any teaching of a high Tc superconducting wire or tape with an electrically insulating layer on the metal sheath/matrix and an outer low friction layer, per se, the claims are considered allowable.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

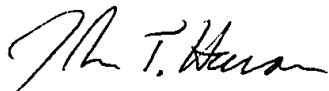
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John T. Haran** whose telephone number is **(703) 305-0052**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on (703) 308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1733

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John T. Haran



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700